

VALEDICTORY ADDRESS

TO THE

ANATOMICAL CLASS

OF THE

Philadelphia School of Anatomy,

DELIVERED ON

FRIDAY EVENING, FEBRUARY 18, 1859.

BY

D. HAYES AGNEW, M. D.

LECTURER ON ANATOMY, SURGEON TO THE PHILADELPHIA HOSPITAL, ETC.

Base

PUBLISHED BY THE CLASS.

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1859.

PHILADELPHIA SCHOOL OF ANATOMY,

UPPER END OF COLLEGE AVENUE,

BETWEEN MARKET AND CHESTNUT AND NINTH AND TENTH STS.

THIS Institution for instruction in *Special Surgical and Practical Anatomy*, has been in operation since 1820. Its classes are formed by the students and physicians in attendance at the different Medical Colleges of the city. All the facilities for obtaining anatomical knowledge, such as ample dissecting apartments, abundance of material, lecture-room, and museum, are possessed. The large increase in the number of students has rendered it necessary to enlarge the accommodations of the institution. Two courses are given annually.

SUMMER COURSE.

The SUMMER COURSE commences the first of April, and continues until the first of September, with a recess in July. The *Antiseptics* in use enable the student to pursue his dissections without any inconvenience whatever during the summer months. The Lectures are delivered three times a week, and embrace the most important subjects of *Descriptive and Surgical Anatomy*.

WINTER COURSE.

The WINTER COURSE commences the first of September, and continues until the first of March, during which the *Dissecting Rooms* are open from 8 o'clock, A. M., to 10 o'clock, P. M.

LECTURES are delivered every evening except Saturday, and cover the whole ground of Special and Surgical Anatomy.

The Medical Colleges allow the Student to dissect ~~when~~ ^{if} he desires.

Fee for each term \$10.

D. HAYES AGNEW, M. D. *Lecturer*,
16 North Eleventh Street.

R. J. LEVIS, M. D., WILLIAM FLYNN, M. D., J. K. KANE, M. D., MORRIS J. ASCH, M. D.,	}	<i>Demonstrators.</i>
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At a meeting of the Class of the Philadelphia School of Anatomy, on Friday evening, February 18th, 1859, on motion of Mr. W. S. Tremaine, Mr. L. W. Dick was called to the chair, and S. Kirk Reynolds, M. D., appointed secretary.

The chair having stated the object of the meeting, the following gentlemen from the University, Jefferson, Pennsylvania, and Dental Colleges were appointed a Committee to prepare resolutions expressive of their sentiments in relation to the course of Anatomical Instruction just completed by Dr. D. Hayes Agnew.

W. S. TREMAINE, Nova Scotia.
 JOHN H. PRENTISS, Maine.
 JOSEPH CLEMENTS, Maryland.
 D. McLEAN GRAHAM, North Carolina.
 J. F. DAVIS, South Carolina.
 W. P. GIBSON, Vermont.
 FRANCIS OAKLEY, Canada West.
 S. D. MARSHALL, Delaware.
 EDWARD CLARKE, England.
 G. L. HUDSON, Georgia.
 JAMES M. MAYES, Alabama.
 EUGENE SCHUNK, Pennsylvania.
 T. P. LLOYD, Missouri.

R. H. HOFFMAN, Virginia.
 W. J. CRAIGEN, Washington City, D. C.
 R. P. NICHOLS, Pennsylvania.
 W. KING SADLER, Ohio.
 FRANCIS REY, Havana.
 J. MORTIMER CRAIVE, New York.
 JOHN H. BRIDGES, New Brunswick.
 JAMES B. MURFREE, Tennessee.
 JOHN R. PRINCE, Miss.
 H. W. KENDALL, Illinois.
 W. H. NEWMAN, M. D., Kentucky.
 JOHN C. SUTPHEN, New Jersey.
 M. L. LANBER, M. D., Philadelphia.

C. P. GORDON, Alabama.

The following resolutions were reported by said Committee:

1. *Resolved*, That in withdrawing from the Philadelphia School of Anatomy, we extend our heartfelt thanks to Dr. D. Hayes Agnew, who has this evening completed a most able, complete and instructive course of Lectures on Descriptive, Surgical, and Practical Anatomy.

2. *Resolved*, That while regarding this most important branch of science as the basis of all medical knowledge, we consider it at once a pleasure and a duty to give publicity to a course, which under the skilful hand, fluent tongue and fertile illustrations of Dr. Agnew, is made full of attraction, interest, and instruction.

3. *Resolved*, That we hereby express to Dr. Agnew our high and grateful appreciation for the unwavering interest which he has manifested in our progress, and his courtesy and kindness as a gentleman.

4. *Resolved*, That we extend to Drs. Flynn, Levis, Kane, and Asch, our thanks for the efficient manner in which they have discharged their duties as demonstrators of Anatomy.

5. *Resolved*, That we recognise the attention and promptness of the Janitor, Mr. John Campbell.

6. *Resolved*, That a committee be appointed to solicit a copy of Dr. Agnew's Valedictory Address for Publication.

On motion of Mr. Bacon, *Resolved*, That the catalogue of the Class be published with the resolutions and valedictory.

COMMITTEE ON PUBLICATION.

W. S. TREMAINE.

WM. C. BACON.

DEWEES MARTIN, M. D.

W. KING SADLER.

JOHN H. PRENTISS.

J. T. COATES.

CORRESPONDENCE.

PHILADELPHIA, *February 18, 1859.*

DR. D. HAYES AGNEW,—

DEAR SIR:—At a meeting of the members of your Class, convened February 18, 1859, after the close of your most interesting and appropriate valedictory remarks, a resolution was unanimously adopted, viz.: That you be requested to favour the Class with a copy of your remarks for publication.

As the committee, therefore, constituted for the purpose of carrying out the object of the resolution, we, the undersigned, respectfully and earnestly solicit, in behalf of the Class, a copy of your valedictory address, for the purpose referred to in the resolution.

Respectfully and truly yours,

W. S. TREMAINE,

WM. C. BACON,

DEWEES P. MARTIN,

W. KING SADLER,

JOHN H. PRENTISS,

JOHN T. COATES.

PHILADELPHIA, *February 19, 1859.*

GENTLEMEN:—Your letter, announcing the resolutions of my Anatomical Class, accompanied with the request on their part, to publish the remarks which were delivered last evening, has been received. I am rejoiced to learn that I have succeeded in imparting profitable instruction to the large class which have attended my lectures, and would desire through you to say, that I do most sincerely appreciate these marks of esteem. The address I place at your disposal, with the highest regard for the members of your committee and the class whom you represent.

I am very truly, your obedient servant,

D. HAYES AGNEW.

To Messrs. W. S. TREMAINE,
WM. C. BACON,
DEWEES P. MARTIN,
W. KING SADLER,
JOHN H. PRENTISS,
J. T. COATES.

A D D R E S S .

GENTLEMEN :

This evening we bring our instructions in the lecture-room to a close. In all things I recognise a superintending *Providence*, by which I have been enabled, amid many and varied engagements, some indeed the saddest of my life, to stand here in my place at each appointed hour to communicate the great lessons of a branch, which constitutes the substructure of medicine. In taking a retrospect of the last few months, there are many points on which it is pleasant to linger, and among these I assure you there are none which kindle more kindly associations, and which I rejoice to have this public opportunity to acknowledge, than the unexceptionable decorum, courteous attention, and untiring industry of the very large class who have honoured me by their presence. It is the consciousness of having enlisted sympathetic co-operation, which imparts new energy to all our labours, and wonderfully lightens the burdens of life. In the dissolution of our present relations I may be allowed to exercise the privilege of *friend* and *counsellor* without the fear of being misunderstood. Many of you are about to give actuality to a purpose of life; to embark upon an ocean where it must be confessed there is more drifting than sailing. The future is before you so full, no doubt, of high resolves, and brilliant anticipations, that heaven and earth seem joined at its encircling horizon, nor would I desire to abate in the least the inspiration which the unknown lends to the engagements of life. Though about to escape from the shackles of the schools and reduce to practicability their doctrines and maxims, yet, if

there be a proper comprehension of the relations created by your calling, and a determination to discharge such in good faith, your term of studentship will not have ended.

Application with a view to acquisition is the idea which I desire very briefly to discuss before we separate. The duty of the student is to study. You have all minds capable of being educated, and developed to an unlimited degree, and it is the possession of such with these capabilities, which creates the obligation to cultivate. The subject, therefore, presents itself with a moral cogency which may not be gainsayed; is not a matter of option, but a duty of organization, and forms one of the most important subjects which can engage the consideration of rational creatures. The influence and respectability of position depend, in a great measure, upon the extent and variety of intellectual culture. We are in possession of much available talent, much, indeed, of which we may be justly proud, yet, notwithstanding the distinction voluntarily accorded to learning by the popular mind: the munificent rewards to be attained, and the crowds which throng the thoroughfares of science, the results have by no means come up to a reasonable expectation. Two considerations probably furnish the most satisfactory solution of this fact. First, A very large class enter the learned professions with no higher motives than such as characterize commercial enterprise, pursuing it as a business, and more anxious to erect monuments, like that of Nebuchadnezzar in the plain of Dura, than such as fill the niches in the temple of fame. While a second, (and not insignificant in numbers,) presses forward in the paths of investigation and discovery, with a zeal in advance of properly applied knowledge, yet with the last centre our hopes for the progress of medicine. It is not saying too much to assert that a very great number of those who enter the school of mental discipline *do not understand themselves*. They possess all the appointments for the struggle of manhood, but are unskilled in their practical management. They fail to apprehend the principles which underlie all cumulative educational advance, and committing an error on this fundamental point, consequently waste their strength in uncertain and unnatural processes. Do you not, gentlemen, see the attes-

tation of this fact almost every day of your living experience? Here is one, who yearning to store his mind from the vast fields of literary wealth, labours for years with the utmost zeal, and yet never rises above mediocrity. Here is another, who by imprudent and ill-judged application, almost offers the physical man a sacrifice to unreasonable diligence, and yet failing to attain the measure of his expectation, abandons in disgust the championship for distinction. And here a third, who by gigantic efforts, aided by a highly developed retentive faculty, becomes a perfect magazine of circumstance, event, and fact, and yet without order, arrangement, or proper disposition, can evolve nothing practical. Moore, in a poem addressed to Spenser, after lauding the scenery, rivers, and fertility of our country, indulges in the following strain:

But mind, immortal mind, without whose ray,
This world's a wilderness, and man but clay,
Mind, mind alone, in barren, still repose,
Nor blooms, nor rises, nor expands, nor flows.

This was a base slander. At that very time, though our country was in its infancy, it was in possession of men whose names would reflect glory on any nation. If I mistake not, Fulton had, in a great measure, matured those plans which resulted in the reduction of steam to the service of man; Franklin had won the motto "*Eripuit fulmen coelo sceptrumque tyrannis*;" Edwards had secured his name to posterity by his treatise on the will; West had portrayed upon canvass his terrible conception of death on the pale horse; Ramsay had taken rank among the historians of his day; Rush had earned a widespread reputation in the cause of liberty, as well as in the departments of medicine and letters; Jefferson had penned the immortal declaration of human rights, and Washington was known as the founder of American independence, and father of his country. It is not the want of mind of which we are complaining, but its mismanagement. In subjects of a material character, an individual of very ordinary physical developments, yet acquainted with the application of mechanic powers, will accomplish results utterly impracticable to the most Herculean endowments unaided by such appliances. And so, in matters pertaining to the mind, there are metaphy-

sical dynamics which must be understood, and employed before any satisfactory results can be effected. Such considerations when applied to medicine, operate with unabated force, and as your future success and advancement enlist my warmest interest, permit me to devote a short time to the notice of a few points important in the acquisition of learning. When the artist would test by an appropriate association of parts the value of some great mechanical idea which his contriving genius has matured, he first sets about the examination of the materials which are to be subjected to his constructive skill. In like manner it would be proper, did time permit, though perhaps not very profitable, to attempt an inquiry into the nature of that *essence*, the cultivation of which we have in view. The metaphysics of every age have exhausted their learning and ingenuity in fruitless research on this subject, and after reviewing in turn the doctrine of the Stagarite, Stoic, and materialist, we are at last driven to accept the simple narrative of revealed truth, "*And man became a living soul.*" Reason and revelation alike teach that it is to survive the decay of these mortal frames and live on for ever. If not—

Whence springs the pleasing hope—the fond desire,
This longing after immortality?
Or whence the secret dread and inward horror,
Of falling into naught? Why shrinks the soul
Back on herself, and startles at destruction?

Its union with our physical nature placed as it is beyond the confines of human penetration, must of necessity remain an unexplained mystery.

In the history of his creation, we can discern the fact, that man is the epitome of universal nature. The erection of his body was the simple aggregation of inorganic matter; the animation of these particles by the breath of vitality exhibits the phenomena of vegetable and animal life; and in the infinite capacity and boundless reach of his intellectual and reasoning endowments, we have an emanation of the eternal and divine essence itself. While it is superior in its nature and dignity to the casket by which it is enclosed, yet for purposes known only to its Creator, for a time, at least, commensurate to the period of natural existence, it is influenced by,

and in subjection to, the physical organization. Their mutual reaction both in health and disease, cannot be too attentively studied by the physician, and he who disregards such knowledge, will often fail to accomplish much which may be legitimately expected from his profession. The mediæ of its education are material mechanisms, *the senses*, and the sources of its knowledge, the external world. Independent of matter, there can be no knowledge. There are no innate ideas. Shut up the avenues of the soul; place some line of separation between the world and the mind, and there is no intellectual manifestation; it remains like the grain of wheat entombed in the hoary pyramids of Egypt, possessed of all the capacities of development, but in a sleep as profound as death. Sensations conveyed to, and perceived by, the mind, constitute ideas, and these must vary according to the variety of impressions. All ideas must in this view be, in their primary nature, simple. Compound, or complex can only result from a combination of simple ones. All useful knowledge consists in the proper combination of simple ideas, and the proper disposition of the resulting compound and complex ones. A mind which simply records without combining, will never reach the higher walks of intellectual distinction. Its operations are merely automatic or mechanical, just as the telegraph notes down the characters communicated to it by exterior agencies. The utility of such characters are only made important when the watchful eye and attentive hand superintending its movements, arranges the records into words and sentences, which, spread on the omnipotent wings of the press, may influence the policy of a nation. It is this principle which distinguishes the practical and abstract from the simply cumulative. The latter, however, are not to be despised. They really make up the great mass of mankind, and while they are the common operatives doing the slave labour of mind, they furnish the raw material for the manufacturing genius. They collect: the abstract arranges into classes, orders, genera, and species. The cumulative furnish facts; the abstract evolve general laws, and from these construct systems and sciences. The former contemplate the exterior of things; the latter unravel organization and structure, discerning those affinities

which lie far beyond the surface. A mind of the latter order is comparatively rare, for the simple reason, that one of such an organization can work up the materials of a thousand of the former. The retention of ideas once formed in the mind, becomes the province of *memory*, undoubtedly the most important of all the faculties. It is the great garner, in which are laid up for future use, the materials of all useful knowledge. Sometimes existing in great constitutional strength, this treasure house of the soul seems fenced about with bars of iron, so as to become an impregnable prison house, proof against all escape, while in other less favoured cases, its defences are powerless, and its sentinels are full of treachery. Nature in such cases usually comes in for a large share of animadversion, and yet it cannot be denied that in many instances

Our remedies oft in ourselves do lie,
Which we ascribe to Heaven; the fated sky
Gives us free scope; only doth backward pull
Our slow designs, when we ourselves are dull.

When the different ideas preserved by the memory are called up and arranged in particular attitudes, we are said to compare, and this act of determining the true affinities of various perceptions, this adjustment of facts, forms a most important stage in all inquiry. It is here what the world calls *bias* often steps in, warps the judgment and vitiates every subsequent step of the mental ratiocination. It is here where the metaphysician may detect one of the most prolific springs of human disagreement. It is a narrow domain, yet from it issue the milk of Christian kindness, or the gall of bitterness and discord; the angel of peace, or the god of war; the desolating spirit of bigotry and intolerance, or the genius of universal liberality and love. The result of this localization of perceptions in accordance with their true relation, constitutes an *opinion*, or more systematically a *judgment*. Thus far the mental process may be considered as *legislative or judicial* in its character. The intelligent agent has been engaged in the reception of testimony by the senses, the investigation of facts, and the formation of verdicts, and this having been accomplished, the *executive* feature is called into activity in those

volitions, which give efficiency and force to the judgment,—“*the will*,”—and here, gentlemen, lies the great secret of man’s power. It is the steam which moves the whole machinery of the soul; before it the mountain becomes a plain, and the most gigantic obstacles which mount up in the way, are scattered as mist before the morning sun: like charity, it “beareth all things, believeth all things, hopeth all things, endureth all things.” The due combination of the constructive and executive in the same person, is a rare and invaluable organization, something like the poet had in mind, when eulogizing the character of Brutus. This was the noblest Roman of them all.

His life was gentle; and the elements
So mixed in him, that nature might stand up,
And say to all the world, This was a man.

With these general remarks upon the sequential order of the intellectual process, we may approach the application of such elementary principles as will bear on the recognition and retention of facts.

I. *The senses are the physical organs of conduction.* The internuncial agents of communication between the two great antipodes of matter and mind; the wires, if you please, which stretch across the gulf between the material and immaterial. On their proper organization will depend the truth, facility, and fidelity of impressions. A dozen of men may examine the same object, and no two agree in the representation of their perceptions, and yet all, in so far as the intellectual act is concerned, be correct in their deductions, in as much as the mind is tied up to the formation of its judgments, upon the testimony of the senses. In judicial investigations this contrariety in circumstantial details, confers additional force and conclusiveness, and a recognition of such facts should make us exceedingly charitable in our opinions of human character. I suppose universal correspondence of apprehension, can never occur under the present economy of our existence, until the soul released from its prison-house of material instrumentalities; from the clogs and embarrassments of flesh and blood, shall speed away like a meteor from probation to fruition; from pupillage to independent and eternal activities, *for then*

we shall see things as they are. Cicero in his treatise on old age, quotes the language of Cyrus the elder, as described in the Cyropedia of Xenophon, which exhibits in a remarkable degree, not only a profound prescience of the soul's immortality, but its augmented powers, drawn probably, it is said, (though I doubt it,) from the deductions of reason. I never, said he, could persuade myself, that souls confined in these mortal bodies can be properly said to live, and that when they leave them they die. But on the contrary, when the mind is wholly freed from all corporeal mixture, begins to be purified, and recover itself again; then, and only then, it becomes truly knowing and wise. The senses, however, can be educated to an extraordinary degree. The blind can, in the absence of sight, detect, in a most wonderful manner, the nicest distinctions of quality, and even, it is said, recognise varieties of colour by the exercise of touch. The sailor, as he steers his bark across the trackless wastes of ocean, catches away in the far off distance the delightful glimpses of land, or descries the approaching vessel, recounts her rig, and reads her streamers and signals, long before the unpractised eye of the landsman will be able to recognise her existence. The savage of our western wilderness, as he treads, with stealthy step, the solitudes of his native forest, will detect the tread of the bison, or scent the track of his enemy, when to the untutored pale face, not a foot-fall is heard, or a danger suspected. You should, therefore, as of primary importance, cultivate and develop the highest capabilities of your sensiferous organs, in order that their records shall be accurate and impressive.

II. *The subjects of sensation should be worthy of investigation.* Life is short, art is long, and there is no time to make investments in frivolous and unimportant pursuits. The sun will not stand still on Gibeon, nor the moon in the valley of Ajalon. Lofty aspiration is the true parent of grand successes. A modern writer states that there was a period in English history, when subjects of royalty ran so rampant, that children even, quarrelled about kings rather than apples. He who is content to recline on sunny slopes, and dally with flowers and toys, will never brave the mountain steep. He

who merely sports his tiny bark over the unrippled bosom of the quiet lake, will never outride the storm, or give a continent to his countrymen. Men were not formed to weave garlands, train vines, or philosophize on moonbeams; this is woman's work: he must level the mountain, buffet the storm, tame the elements, and civilize the world.

Begin, behold, and venture to be wise.
He who defers this work from day to day,
Does on a river bank expecting stay,
Till the whole stream that stopped him shall be gone,
Which runs, and as it runs, for ever shall run on.

In this respect, the subject of medicine is eminently worthy of attention. It is among the noblest of pursuits. The subject of its investigation is the crowning act of creation,—the master-piece of Heaven's mechanism. It is eminently humane in all its aims, being circumscribed by no narrow lines of name, sect, or religion; and it is beneficent in its influences, for it ever presses home upon the conscience a sense of mortality and futurity.

III. In study, if more than one object be pursued, those should be selected which have natural affinities. To acquire profoundly, impressions must not be too diverse. The prevailing disposition of the American mind is to drink at every fountain, to explore every path and mine, every vein of scientific pursuit. It is unfavourable to great attainments. It is better to gather up all the energies of the intellect, and throw them into one or two branches. The power of the German mind is in this perfect insulation and unity of thought.

IV. *The mental recognition of an impression forms a perception, and must be distinct.*—If this be not the case, either the mind will fail to recognise at all, or the impression will be soon effaced. This may result either from the unimportant nature of the sensation, defect of the conductor, or inattention of the perceiving agent. In the majority of the cases it is the latter, and hence, attention or concentration is an essential qualification in the scholar. It is a simple abstraction of the mind from every other sensation, save such as proceeds from the subject of immediate investigation. Its possession is imperative; nothing can be accomplished in its absence. It is

earnestness which we require; we want men to think for their very lives. We want you to look at each subject, as though you and it were the only two things in the world. To look with an intensity akin to that which we can but imperfectly conceive characterized the vision of those hapless souls, who from the deck of the ill-fated America, searched the horizon for some auspicious sail, to deliver them from the devouring sea. A celebrated ancient philosopher was found in the retirement of his study, so deeply absorbed in the solution of a problem, as never to have heard the sacking of his city, or even the footsteps of the soldiers, when they entered his apartment. This is only one of numberless instances which might be cited, and is the characteristic, in some degree, of all distinguished scholars. If there are any before me, who are conscious of a defect here, the sooner you set about repairing the difficulty the better, for there is no progress without it.

V. *Ideas must be remembered.*—This feature of our subject opens up a wide field for speculation. Avoiding all such unproductive domains, I shall touch only a few points which commend themselves to the common sense of an inquirer. This proposition includes memory and recollections; the former, passive; the latter, an active state of the mind. Every thing which has been enumerated in our preceding remarks, is tributary to this faculty. It is a startling consideration to realize the fact, that this faculty is to play a prominent part in another, and final state of existence. It is to be the unquenchable flame, and the deathless worm. Enough is already known of it, even in this life, to feel its capability to make us very happy, or very miserable, and there are few physicians who have not at some period of their professional duties, seen terrible exhibitions of its potency, when under the pressure of a very near approach to death, the slumbering recollections of a whole life, come from their unbidden graves, and confront the soul. It is capable of extraordinary cultivation. Berthicus informs us, that he wrote his Claudian Comment, without even consulting the text. There are many members of the clerical profession, who can repeat their discourses after a single reading. There are gentlemen of

the bar, who conduct cases at law, involving numerous witnesses, and contradictory testimony, without taking a single note; still, in the majority of cases, its defect is the most common difficulty in the way of acquiring and retaining knowledge, and requires some particular notice at our hands.

In the first place, much depends on the condition of the body, requiring for its unembarrassed activity, temperance in eating, drinking, and sleeping. A man with a stomach filled to repletion, saturated with liquid devil, and who turns upon his bed as the door turns upon its hinges, would clean the Augean stable with more ease, than master the fifth pair of nerves. It is needless, I hope, in such a presence, to dwell on the necessity of moderate indulgence, and judicious hours, as of the utmost consequence to the student. Yet with all our preceding specifications, impressions will sometimes fail to be permanent, and it becomes imperative to introduce a system of mental tactics, as invaluable aids to recollection. Simonides is said to have first suggested the feasibility of such a course, by the circumstances growing out of a disastrous feast, but I presume the necessities of man have, the world over, and in all time, resorted to ingenious stratagem for this purpose. To accomplish this, abridged notes may be made for future reference, expressed in your own language, and reviewed as necessity may require.

Again. *There is a natural fitness of means for ends*, and in all study or investigation this suggestive and guiding truth should never fail to possess the mind. In the science of medicine, such adaptations are subjects of the most superficial observation.

Again. There are laws which being applicable to a large class of objects or phenomena, may be termed general or universal; and it should be always a paramount object to ascertain the subsisting relations of such things as may be under consideration, casting into groups all such as legitimately come under the operation of a general rule; or, again, by collecting such, to attempt still higher generalizations. I am well aware of the defiant attitude assumed by modern science when contemplating the matter of antecedents: discoursing of law as independent of Lawgiver; excluding God from his own crea-

tion, and fortifying itself behind the defences of inflexible necessity. This is learning destitute of a Christian baptism; and though its sophisms may administer to the desire of eccentricity, or dazzle the superficial, yet it is neither creditable to the head nor purifying to the heart. Men are apt to become "wise above what is written," and the too frequent attempts to array the *natural* against the *revealed*, have prejudiced many good minds against physical science. The fears of all such are unfounded. Skepticism has never yet forged an instrument that the hammer of Christianity has not shivered: it has never yet sent forth its man of Gath to defy the armies of a religious faith, who did not fall by his own weapons, pointed and thrust by the spirit of matured observation and truth.

Again. *Repetition of the mental process.* This may be accomplished by reflection or conversation. It is the only discipline which can give permanency to your acquisitions, and, if diligently practised, the most obtuse natural endowments may be trained to any degree. Just as the single drop, by continual droppings, will eke out an impression in the adamant rock, or the soft and gentle snow flake, piling one particle on another, will eventually rear its spotless crest, and challenge the fiercest onset of man or steam. This exercise not only gives a lasting localization, but ensures a freedom in expressing, and perspicuity in communicating our information.

Association, as a means of suggestion, will greatly re-enforce the memory. This may vary in mode, though the principle of operation is the same in all. It may consist in elevating to importance an unimportant idea, by significant alliances, just as we often see in common life, where, by the artificial distinctions of modern society, an individual in ordinary apparel commands no notice, yet who, by the adventitious circumstances of the mighty dollar, a good wardrobe, and particular accent of name, will be recognised and courted on all sides. Or it may be the connexion of circumstances.

It is said there exists a custom in Russia to identify the lines of property. Wherever along their course a lad is found, he is seized, and subjected to a severe flagellation. The loca-

lity he never forgets—associating it, as you may well suppose, with a very *striking* event of his life. The senses become great auxiliaries to this principle. The chancellor of Oxenstiern understood the influence of such agencies when he was sending his son to a congress of ambassadors (and when the young man insisted on the want of confidence in his own abilities for such engagements) “Go,” said he, “and see with your own eyes.” *Quam parva sapientia regitur mundus.* How faint must have been the loftiest conceptions of Italy (says Dr. Brown) compared with those which the poet experienced, when amidst the ruins of Rome he drew—

The inspiring breath of ancient arts,
And trod the sacred walks,
Where at each step imagination burns.

When Mark Antony would set on fire the Roman mind, it was not in language of pathetic panegyric, but with the profound address of one who well knew the springs of the human heart, he showed them the rents of the conspirators’ daggers in Cæsar’s robe, and Cæsar’s wounds. When Manlius, unable to resist the temptation of power, proved faithless to Roman confidence, he was hurried away to be hurled from the Tarpeian rock. On their way thither, at one point of its approach, the capital came full in view. Toward that glorious city—the joy of every Roman heart—he stretched forth his arms. The defeat of the Gauls: the salvation of Rome, and the deliverance from peril and disaster, wrought by his devoted heroism, rushed like a tornado over the minds of his executioners, sweeping away for a time the stern mandates of justice in a flood of grateful recollections. Again and again they attempt the ascent; the same mute appeal as often disarms their resolve, and only by the selection of another path were they enabled finally to execute the terrible behest of the law. And so, when Napoleon would call out the martial daring of his soldiers, in the critical struggle of the Pyramids, he told them: “Soldiers! from the top of yonder pyramids, forty ages behold you.” Have you ever, with the eye of a philosopher, watched the little child in its earliest essays at self-information? Place a rattle in his tiny fingers, and he views it in every possible position. Having satisfied itself

with such evidence as the eye will afford, the fingers are next passed over every portion of its surface, subjecting it carefully to the touch. It carries it, perhaps, next to the mouth, to test it by the tongue; and, finally, with joyous glee, it shakes the toy, thus completing the examination by engaging the testimony of the ear. The whole act is purely inductive; and Lord Bacon did nothing more than rationally interpret the instincts of this infant philosopher, when he announced that great fundamental proposition at the threshold of his work. Man, the servant and interpreter of nature, understands and reduces to practice just so much as he has actually experienced of nature's laws. More he can neither know nor achieve. This shows the value of being brought in contact with the subjects of study; and it is the prominence given to this fact which makes the summer instruction in Philadelphia so valuable.

No where are theoretical instructions reduced more completely to practical demonstration than here, and under the organizations which now exist. It is the student's own fault, if he cannot buckle on the armour of active professional duty, feeling a complete self-possession, under the conviction that he journeys over ground, and confronts subjects with which he has been made familiar. Medical instruction in this city, is not now what it once was; the work of four or five months, and confined to the different Medical Colleges. There have sprung up a series of independent courses, which cover the summer months, and which are practical reductions of winter teaching. Thus we have pathology, obstetrics, operative surgery, pharmacy, physical diagnosis, anatomy and chemistry, taught by bringing into experimental contact with each. In these specialities there are embarked much talent, self-sacrifice, and zeal, and from small beginnings, they have grown into established significance, purely on their own merits, for I think I do no injustice in asserting, that with a few honourable exceptions, they have not met with that professional sympathy which their importance deserves. Perhaps, too, there is nothing wrong in this. If there is one salient point in the American character, it is the *shift for yourself*. The energy and self-reliance which result, necessarily connect

success with merit. Yet we cannot deny there is in it something akin to that spirit which moves the breast of the mariner, whose strong-built vessel, having outlived the storm, fails to lie by those smaller craft, which struggle between the winds and the waves.

Thus, gentlemen, I have very rapidly passed over some processes necessary to education, which, viewed in the concrete, involve both matter and mind. The material part, extending into the outer world, and conveying by special organizations, its properties to material centres by sensations, at the termination of which begins the intellectual part of the process, perception, memory, judgment and will. Each of these points would admit of very great amplification altogether, however inconsistent with the character of our present address. The different topics have been presented in a skeleton form, leaving their more detailed prosecution as subjects for your future reflection.

It is pleasant to linger with these thoughts. I would fain protract this hour of friendly communion, did I not know you have duties to perform. I would not lengthen out those moments which separate you from the joys of home. I well know, that in many a town, hamlet and plain of our beloved country, at this very moment, the currents of affection move with unusual power in the deep fountains of many hearts, and I would that their fullest anticipations be realized. The profession which you have adopted, calls for great application, self-denial, and high-minded rectitude. But I pray you, bear in mind that the fruit of matured intellect will govern the world, and that true knowledge is indestructible. It may be buried for a time amid the rubbish of thought, by some overflowing Vandalism, but it must pierce the strata of past accumulations, as the waters permeate the earth, only to gush out in living and purer springs. Medicine also has its temptations to encounter. There is a wonderful stream whose blue waters stretch from the Gulf of Mexico, to the Arctic Seas: it traverses the ocean like a majestic river, never mingling with its currents, or assimilating their properties. Amidst the labyrinth of difficulties which beset the professional life, like that mighty Gulf Stream, move forward in the path of

duty and labour. I doubt not, as many of you journeyed hither from your distant homes, you may have noticed that the season had laid its hand on the foliage of the forest, and that every gale as it swept along, had strewn the earth with showers of leaves, stricken, and parted from the parent stem. A few short months, and under the plastic activities of nature their elementary parts will be again re-arranged, and embodied in the annual accumulations of the stalk. Change is written on all things here below. You, my friends, are not exempt from this universal law, but instructed by these silent monitors of material things, labour with all earnestness, and perseverance, so that when the autumn of life shall have come bidding you to rest from the activities of labour, there may be revenues of rich acquisitions to perpetuate your names, and add to the common stock of your noble profession.

ANATOMICAL CLASS OF 1858.

NAMES.	RESIDENCE.
M. S. Bolton,	North Carolina.
M. Joseph Clements,	Maryland.
Benjamin S. Barnes,	Alabama.
Henry D. Lachenour,	Pennsylvania.
W. H. H. Michler,	do
Harry C. Yarrow,	Philadelphia.
Dr. J. Simpson,	South Carolina.
R. S. Dunlap,	do
John W. Ligon,	do
John B. Watts,	do
Jose L. Ajhona,	South America.
Serapio Recio,	Cuba.
James E. Garretson, D. D.,	Philadelphia.
William C. Hummell,	do
T. Wells,	South Carolina.
W. T. Sharp,	Ohio.
C. P. Gordon,	Alabama.
Samuel W. Hawthorn,	Virginia.
W. T. Elder,	do
Jones Wilson Bailey,	Pennsylvania.
Henry Bonnabel,	Louisiana.
Granville Wood, M. D.,	Pennsylvania.
John Stettler, M. D.,	Philadelphia.
R. H. Buskin,	Georgia.
F. J. Gregory,	Virginia.
Daniel M'Lean Graham,	North Carolina.
L. Englehard, M. D.,	Pennsylvania.
W. S. Tremaine,	Nova Scotia.
S. R. Dance,	Virginia.
Samuel Morton,	Alabama.
James M. Mayes,	do
B. W. Green, M. D.,	Virginia.
R. P. Means,	Alabama.
M. A. Marshall,	Georgia.
George J. Wood,	Ohio.
P. A. Hay,	South Carolina.
J. Mortimer Crawe,	New York.
Francis Rey,	Havana.
J. Higgins, Jr.,	Alabama.
T. C. Hill,	do

NAMES.	RESIDENCE.
W. V. Coxton,	Virginia.
W. S. Searle,	New York.
D. G. Brinton,	Pennsylvania.
C. H. Stallings,	North Carolina.
W. T. Brewer,	do
J. M. Jackson,	do
P. S. Petway,	do
Wm. H. Matlack,	Pennsylvania.
Charles J. Roseberry,	do
Deweese J. Martin,	do
Barnet C. Walter,	do
M. T. Bowes,	do
W. H. Newman, M. D.,	Kentucky.
W. C. Bacon,	Pennsylvania.
Andrew J. Watson,	do
J. F. Davis,	South Carolina.
Max Marbourg,	Pennsylvania.
Wm. Mitchel,	Nova Scotia.
T. J. Blackwell,	North Carolina.
W. L. Glass,	do
R. C. Pearson,	do
G. W. Cox,	Virginia.
N. C. Pyles,	Tennessee.
S. C. M'Clanahan,	do
O. L. Crews,	Alabama.
Theodore C. Yeager,	Pennsylvania.
T. K. Gibson,	South Carolina.
Thomas J. Savage,	Alabama.
Eugene Schumo,	Pennsylvania.
J. J. Guth,	do
L. W. Dick,	South Carolina.
J. S. L. Peacock,	do
T. P. Lloyd,	Missouri.
Jacob L. Gatchell,	Pennsylvania.
T. Howard Ridgley, M. D.,	do
J. D. T. Lever,	South Carolina.
Richard Bagnall,	Virginia.
R. N. Hoffmans,	do
W. Griffiths,	Philadelphia.
S. M. M'Alpine,	Alabama.
James W. M'Gee,	North Carolina.
George H. Robbins,	Maryland.
Wm. A. Allen,	South Carolina.
John H. Bridges,	New Brunswick.
J. Sample, U. S. N.,	Pennsylvania.
Jacob Worls,	Alabama.
John H. Prentiss,	Maine.
J. S. M'Lean, M. D.,	Pennsylvania.
Thos. B. Hayward,	do
A. D. Bennett,	do
E. Bailly, M. D., U. S. A.,	do
John J. Clark,	do
C. C. Sharrard,	Alabama.
T. W. Chiles,	South Carolina.
Henry Gemrie,	Philadelphia.
J. C. Larkin, M. D.,	Alabama.

NAMES.

E. K. J. Deemy,
 Wm. H. Campbell,
 W. Robinson, M. D.,
 J. H. Parke, M. D.,
 J. P. M'Gee,
 J. W. Clarkson,
 P. H. Adams,
 Isaac D. Conrad,
 T. J. Kelly,
 G. S. Kleckner,
 Hiram Taylor,
 J. R. Finley,
 W. Roberts,
 F. S. Thompson,
 P. J. Nichols,
 T. Nichols, M. D.,
 David W. Hoover,
 W. A. Wollen,
 J. B. Clark,
 B. G. Dysart,
 T. P. Perkinson,
 Isaac T. Coates,
 W. J. Craigen,
 Joseph T. Shoemaker,
 Edward Clarke,
 J. Harvey Fulton,
 W. G. Mace,
 H. Drennen,
 B. L. Reynolds,
 G. L. Hudson,
 John C. Sutphen,
 S. D. Marshall,
 C. W. Walker,
 Charles Lee,
 J. F. Davis,
 H. Newell,
 H. W. Marbourg, M. D.,
 David Richardson, M. D.,
 J. G. West,
 Richard Griffith,
 J. E. Slicer, M. D.,
 John R. Prince,
 W. A. Dunn,
 C. A. M'Kinley,
 H. W. Kendall,
 W. M. Thompson,
 O. F. Havrell,
 R. L. Fussell,
 S. Kirk Reynolds, M. D.,
 J. Collins,
 J. G. Sheward,
 R. Jones Baily, M. D.,
 J. Ackley Gray, M. D.,
 James T. Logan,
 Thomas Penrose, M. D.,
 Richardson, M. D.,

RESIDENCE.

Pennsylvania.
 do
 North Carolina.
 Alabama.
 Tennessee.
 Philadelphia.
 South Carolina.
 Pennsylvania.
 North Carolina.
 Pennsylvania.
 Virginia.
 Altoona, Pa.
 Pennsylvania.
 South Carolina.
 Pennsylvania.
 Maryland.
 Pennsylvania.
 North Carolina.
 do
 Missouri.
 do
 Pennsylvania.
 Washington, D. C.
 Pennsylvania.
 England.
 Maryland.
 South Carolina.
 do
 do
 Georgia.
 New Jersey.
 Delaware.
 Virginia.
 Maryland.
 South Carolina.
 Maryland.
 Pennsylvania.
 Kentucky.
 Pennsylvania.
 Philadelphia.
 Baltimore, Md.
 Mississippi.
 North Carolina.
 Georgia.
 Illinois.
 Alabama.
 do
 Pennsylvania.
 Philadelphia.
 do
 Pennsylvania.
 do
 New York.
 Pennsylvania.
 do
 Kentucky.

NAMES.

A. Maxwell Wallis,
 W. P. Dicks,
 Henry C. Eckstein, M. D.,
 Joseph R. Finley,
 J. R. Waugh,
 W. W. Chenwult,
 G. A. Waugh,
 Francis Oakley,
 T. F. Lee,
 L. H. Gates,
 David R. Richardson,
 John Young,
 G. W. Mitchell,
 Charles Woodnutt,
 John Flowers,
 John Buchanan,
 T. S. Thompson,
 J. M. B. Jackson,
 C. Day,
 James Fulton,
 Wm. Morrison,
 Wm. P. Gibson,
 George Smith,
 A. Applebach,
 James B. Murfrec,
 Wm. King Sadler,
 Thos. M. Blount, M. D.,
 J. Stettler, M. D.,

RESIDENCE.

Indiana.
 North Carolina.
 Pennsylvania.
 do
 North Carolina.
 do
 do
 Canada West.
 Alabama.
 Georgia.
 do
 Philadelphia.
 Pennsylvania.
 Philadelphia.
 Pennsylvania.
 Scotland.
 South Carolina.
 Pennsylvania.
 North Carolina.
 Pennsylvania.
 do
 Vermont.
 South Carolina.
 Pennsylvania.
 Tennessee.
 Ohio.
 District of Columbia.
 Philadelphia.

Wm. D. D. D. D.
1860

